DOCUMENT RESUME

ED 229 103 PS 013 286

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TITLE The Effects of Maternal Employment on the Academic Attitudes and Performance of School-Aged Children.
PUB DATE Aug 80
NOTE 72p.; Prepared for Families as Educators Team, National Institute of Education, Washington, DC.
PUB TYPE Information Analyses (070)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Academic Achievement; Comparative Analysis; Employed Parents; *Employed Women; Literature Reviews; *Mothers; *Parent Influence; Research Design; Research Needs; *Sex Differences; *Social Class

ABSTRACT

Research on the relationship between maternal employment and academic orientations of school-aged children is critically reviewed, and avenues for future research are suggested. Most data reviewed are based on white, intact families. Patterns of academic orientation were found to differ by sex and, particularly for sons, by social class. Daughters of employed mothers tend to outperform daughters of nonemployed mothers, but this conclusion was based more on the general pattern of findings than on correlations between mothers' employment and daughters' academic scores. Sons presented a mixed picture. In the middle class, some data suggest that sons of employed mothers show lower academic performance; in the blue-collar class, modest evidence suggests that maternal employment is associated with higher performance. Few adequate studies of nonintact families, minorities, or very low-income groups exist, but data for this population generally show a positive relationship between maternal employment and the child's performance, except when employment is accompanied by particular stress. Several hypotheses to explain a possible adverse effect of maternal employment on middle-class sons' academic orientations are discussed, and specifications for independent, dependent, conditioning, and intervening variables are suggested for further research. (Author/RH)

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THE EFFECTS OF MATERNAL EMPLOYMENT ON THE ACADEMIC ATTITUDES AND PERFORMANCE OF SCHOOL-AGED CHILDREN

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A paper prepared for
Families as Educators Team
National Institute of Education
Washington, D.C. 20208

August 1980

PS013286

ABSTRACT

This paper presents a critical review of the research on the relationship between maternal employment and academic orientations of school-aged children and suggests avenues for future research. Most data are based on white, intact families. Patterns differ by sex and, particularly for sons, by social class. Daughters of employed mothers tend to outperform daughters of nonemployed but this conclusion is based more on the general pattern of findings than on correlations between the mother's employment and the daughter's academic scores. Sons present a mixed picture. In the middle class, some data suggest that sons of employed mothers show lower academic performance; in the blue-collar class, there is no clear picture but modest evidence that maternal employment is associated with higher performance. Several hypotheses were considered to explain this pattern.

Few adequate studies of nonintact families, minorities, or very low income groups exist, but data for this population generally show a positive relationship between maternal employment and the child's performance except when employment is accompanied by particular stress. The data are too scanty for adequate interpretation and might even be due to selective factors: more able, better educated, or less distressed mothers may be the ones employed. Further research on this population is particularly needed.

Future studies also should specify the independent variable, maternal employment, as to hours, duration, age of child during employment, job level. Dependent variables need to include various measures of academic performance, competence generally, creativity, school attitudes, motivation, occupational and educational goals, adult success, and age changes in effects. Discussion stresses the importance of conditioning variables, such as sex, social class, family structure, support systems, parents' education, and attitudes; and of operationalizing intervening variables such as mother's emotional state, father's role, parent-child interaction, child-care arrangements and the child's socio-

emotional state. The need for research on the adaptation of schools to maternal employment was also discussed.

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SOCIAL SETTING

Few social changes can be so clearly documented as the increased employment of mothers. What was once a deviant pattern, is now the modal family style. The census data for 1979 show that over fifty-nine percent of the mothers, living with husbands, with school-aged children but no preschoolers, are employed. For comparable families where no husband is present, over seventy-two percent are employed. The most rapid gains in employment rates, however, have been shown for mothers with preschool children. In 1979, the employment rate for women, living with husbands, who have preschoolers was over 43%, a rate more than double the 1960 rate of 19%. For single mothers of preschoolers, the 1979 rate was close to 60%. Maternal employment rates are climbing for all groups, and the single-parent families which have always had higher rates of maternal employment are also on the increase. The result is that more mothers work than do not work, and there is every reason to believe that this trend will continue (U.S. Department of Commerce, 1980).

This phenomenon is a natural outcome of several social changes: technological developments that have affected the nature of available jobs, the streamlining of household operations, and the increased economic efficiency of outside-the-home production; smaller family size, some part of which is itself a function of technological change, i.e., more effective contraception; and the increased life expectancy and good health of the female population. To this list of factors that have come about because of scientific and technological advance one could add other social changes such as the increased number of female-headed households and economic circumstances that make it necessary for wives to be employed in other to maintain an acceptable (objectively or subjectively) standard of living.

Further, there is reason to believe that the traditional female role of

full-time housewife and mother is no longer psychologically satisfying for women. While the new feminist ideology may augment this discontent, much of it may be a response to the changed nature of the role itself. Household appliances and modern food-processing techniques have diminished much of the necessary part of housework. Time-use studies did not until recently (Pleck & Rustad, unpublished manuscript) show that the amount of housework done by the nonworking mothers had diminished, but even when the hours of housework seemed steady over the years, the nature of the work changed and could no longer be justified as an essential contribution to the household or an adequate use of the woman's ability. As job possibilities for women increased (Oppenheimer, 1970) and female employment became more prevalent, the possibility of using ones time to earn money for the family became a conscious and viable alternative. In addition, women's educational levels have taken a considerable upswing since the Sixties, and this education provides both a motivation for, and an ability to obtain, more satisfying employment (Hoffman & Nye, 1974).

Thus we have moved a long way from the time when the question was asked as to whether or not women should work. They are working, in increasing numbers, and there are many economic and psychological reasons for this. It is a realistic response to present social conditions. In view of these conditions, it may even be a pattern that is in many ways better suited to effective childrearing. In a previous publication (Hoffman, 1979), we have suggested three such ways: (a) Because of the diminution in required housework and its capacity for providing the woman with a feeling of competence and contribution, and because of the increasing prevalence of the two-child family in America, nonemployed mothers may put more time, intensity, and anxiety into the mothering role than is advantageous for the child. In the longitudinal work by Moore (1975), continuous full-time mothering during the preschool years was related in boys to their being, as adolescents, more

intellectually able but also more conforming, fearful, and inhibited. Birnbaum's work (1975), covering the same period, suggests that the educated nonworking mother may inadvertently encourage dependency. This may be a problem particularly as the child grows older and the mother fears that her major role is diminishing; she may feel a need to hang on when the child's maturation requires letting-go.
(b) Because of these same new social conditions, work may be valuable as a boost to the mother's morale. A number of recent studies have indicated that the working mother is more satisfied with her life than the nonworking mother, and so is her husband (Gold & Andres, 1978a; Gold & Andres, 1978b; Dizard, 1968; Hoffman, 1974). Furthermore, the mother's satisfaction has frequently been linked to various measures of effective parenting or child adjustment (Yarrow, Scott, DeLeeuw & Heinig, 1962; Kliger, 1954; Kappel & Lambert, 1972; Woods, 1972).
(c) The fact that work has become so prevalent among women, and, indeed, will occupy more of their adult lives than will active childrearing, means that the adult roles for which daughters are being socialized include a major commitment to work. Traditional socialization patterns, on the other hand, have geared daughters toward motherhood and not employment (Hoffman, 1977). While occupational pursuits may still fill most of the son's adult life, his breadwinner role is likely to be shared with his wife and he may be more active in childrearing than his father. Thus, socialization goals may be changing and the working-mother family may fit better with the new adult roles that children are likely to occupy.

Social change, however, occurs at different rates, and neither people's attitudes nor institutional policies accommodate immediately to new situations. Because of this, the increased employment of mothers may present a number of problems for family life and childrearing. If full-time mothering of two school-aged children, for example, is not a full-time job, it is a heavy load

in combination with full-time employment. Community and government services and institutions, the occupational structure, and the family form itself with its traditional sex-role division of labor, have not changed adequately to accomodate to the prevalence of maternal employment. In households where there is a father, the father may help more when the mother is employed but not enough more to equalize the task. When there is no father, the economic and psychological need for employment is greater, but so is the task. Few jobs are conveniently coordinated with school schedules, so even when the children are all in school there may be a need for after-school care that the working mother herself cannot provide. Thus, maternal employment under adverse circumstances can put the mother under heavy stress. Instead of the positive effects of maternal employment that can be mediated by the mother's higher morale, we may find negative effects that are mediated by the strain of filling two very demanding roles (Woods, 1972; Hoffman, 1974). Thus there is a need to examine empirically the effects of maternal employment to see in what ways and under what conditions it operates as a positive influence on child development and in what ways and under what circumstances it operates as a negative influence. Such an analysis would have considerable significance for social policy and individual coping. But more than that, there is a need simply to <u>understand</u> how this important social change affects children.

OVERVIEW

In this review we will concentrate on the effects of maternal employment on the academic attitudes and performance of children in elementary and secondary schools. Since maternal employment implies a change in family structure and functioning, including childrearing patterns, it is reasonable to assume that it also has significance for the academic orientations of children. We will

review the research that bears on this issue, develop some hypotheses about the nature of the relationship, and point out research needs. There is a growing literature on the effects of maternal employment on infants and toddlers but most of this work will be excluded unless it seems particularly germane to academic orientations. There are two particular cautions that must be exercised in generalizing from the data here reviewed.

First, the data are very limited. There is in fact no study that has properly investigated the connection between maternal employment and the child's academic attitudes or cognitive functioning and abilities. There are some scattered studies that have examined the statistical differences between working and nonworking mothers' children with respect to certain academic indices, but have paid little attention to why differences are or are not found. There are other studies of maternal employment that have not looked at academic indices at all, but have taken as their dependent variable some family interaction pattern, childrearing style, or child characteristic that seems likely to have significance for the child's academic qualities. These are the data with which we have had to work. Furthermore, many of these studies used different samples and measured the variables in different ways, so the integration of results is difficult. An even more serious problem is that much of the research has flaws in measurement or design. We have eliminated studies that are seriously flawed, and point out specific problems with the research that is considered. In addition, some general pitfalls in doing research on this topic are discussed. Working with the data at hand, some tentative generalizations seem to emerge, but these should be taken as hypotheses to be further investigated rather than as proven fact.

Second, most of the studies were carried out before maternal employment had become so prevalent in the United States, and the most recent ones were

carried out in Canada where rates are lower than here. Both the presence of working-nonworking differences and their absence might reflect the prevailing social conditions and thus not be generalizable to the present or future situations. For example, what if the general absence of negative effects that is found results from the fact that the working mothers have made a special effort to compensate their children for the time they spend at work? In a situation where maternal employment is normative and accepted, this effort might not be made and studies conducted in the future may produce a different picture. Similarly, as will be taken up later, some of the apparent effects of maternal employment may result from the perception that maternal employment is not normative but reflects a failure on the part of the husband. The data examined for this review may be limited then by the fact that they were obtained in a social situation that has changed as a result of the recent rapid increase in maternal employment rates.

REVIEW OF THE LITERATURE

In a previous review of the literature on the effects of maternal employment on the child (Hoffman, 1974), we stated that while academic achievement had been examined more often than other child characteristics in relation to maternal employment, these studies are remarkable in their absence of guiding theory or even post hoc interpretation. Furthermore, they differ from one another in how maternal employment is operationalized, how academic achievement is measured, the age of the child at time of measurement and at time of the mother's employment, and in how the data are presented and grouped. As an example of the last, the relationship between maternal employment and academic achievement seems to be different for each sex and social class, but some studies combine the data

for boys and girls though they present results separately by social class, some combine social class but present data separately by sex, some control statistically on both variables but do not examine the separate relationships, and some do not control on these variables at all. Failure to control on these and other variables makes the data virtually worthless for, as has been often pointed out (Etaugh, 1974; Nye & Hoffman, 1964; Hoffman & Nye, 1974; Wallston, 1973), maternal employment relates to income, maternal education, presence of husband, presence of nonparent adults in family, number of children in family, age of children, ordinal position of the child, and parent attitudes, all of which also relate to academic abilities. However, failure to analyze the data separately for different subgroups may be misleading because there may be a positive relationship for one part of the sample and a negative one for the other. Combined, there seems to be no relationship; separated there may be two significant relationships in opposite directions.

In this review, we will concentrate mainly on sex and social class as subgroups largely because the data that exist permit this to at least some extent. However, other conditioning variables might be equally important. For example, data presented by Cherry and Eaton (1977) suggest that relationships between maternal employment and cognitive indices may be different for intact and one-parent families. Most of the studies exclude one-parent families and this remains a basically unstudied group despite its growing size. The Cherry and Eaton data also suggest that effects are different in different size families, but this variable is rarely considered except for matching samples. It is also reasonable that effects may be different for different education groups, different kinds of jobs, different ethnic groups, different levels of poverty, different family attitudes, different kinds of support-systems, and

an endless list of other variables. Failure to find a relationship between maternal employment and academic indices does not mean there is none for certain segments of society or when certain conditions prevail.

A general overview of the data on the relationship between maternal employment and various indices of the child's academic skills and attitudes is that daughters of employed mothers probably outperform daughters of nonemployed mothers. This conclusion, however, is drawn mainly from the general pattern of findings rather than from specific correlations between the mother's employment status and the daughter's academic scores. Sons, on the other hand, present a more mixed picture. In the middle class, there are data that suggest that sons of employed mothers show lower academic performance; in the lower class, there is no clear picture but a modest amount of evidence that the effects of maternal employment are positive. These data are far from adequate and none of these patterns are firmly established, but there are at least adequate grounds for this interpretation to provide an integration of existing studies and a focus for future research.

The bulk of the studies considered only intact families and predominantly white samples. What we are calling "lower class" typically consists of families where the father is employed in semi-skilled or skilled blue collar work or where his occupation does not require formal education past high school. (We use the term "lower class" and avoid the term "working class" because of the possible confusion with "working mother".) There are, however, four studies which examined maternal employment and the child's academic performance in predominantly black, very low income families, where mother-headed households were quite common. Since none of these studies reported the academic correlates

of maternal employment separately for sons and daughters, these studies will be considered separately. We will discuss these studies first, then data for daughters, and finally data for sons.

Maternal Employment in Very Low Income Families

In the studies of low socio-economic status groups which were largely black and included single-parent families, full-time maternal employment was generally associated with better academic performance. Rieber and Womark (1967) studied 568 preschool children whose incomes were in the lowest 20% for their community in Harris County, Texas. The sample included blacks, Latinos, and Anglos; 75% of the children lived with two parents. The study compared the children in the lowest quartile on the Peabody Picture Vocabulary Test with those in the highest. The latter group included twice as many children of working mothers (51.2% versus 25.2%). It was also reported that full-time maternal employment was associated with better school and social adjustment as measured by the California Test of Mental Maturity and the California Test of Personality. The study is interesting and the first of its kind, but the statistics were simple, no attention was paid to the role of other variables such as ethnicity or maternal education, and boys and girls were combined in the analysis.

Woods (1972) in her study of fifth-grade children attending school in a black ghetto area in the East, also found full-time maternal employment was related to higher scores on the California Test of Mental Maturity. In this study all of the mothers were employed and so the comparison group was part-time or irregular employment. The results, showing full-time, steady employment to be positively related to the child's scores on this test, and various measures

of social adjustment as well, are consistent with the findings of the much earlier study by Gleuck and Gleuck (1957) of delinquency in lower class boys, and different from the pattern generally found in the middle class. If we think of the child-outcome variables generally, part-time employment in the middle class has usually shown more positive effects than either full-time or nonemployment (Hoffman & Nye, 1974; Kappel & Lambert, 1972). Woods suggests that, in the sample she studied, full-time employment is a requirement of family well-being, considering their economic circumstances and, as such, is respected and appreciated. This interpretation is consistent with our own earlier hypotheses about the meaning of maternal employment, particularly among blacks (Hoffman, 1963b), and with other data (Kriesberg, 1970). A basic theme in our previous reviews is that the context within which maternal employment takes place, the meaning it has for the family, and the social setting, determine its effects.

In addition, the positive correlations between full-time employment and child-outcome variables raise the question of possible selection factors. If the situation calls for maternal employment, are the women who do not respond less adequate mothers in some way? For example, with a comparable sample, Cherry & Eaton (1977) found that the working-mother homes included fewer children and more adults per child, factors that have themselves been linked to higher I.Q.'s and other indications of cognitive ability (Clauson & Clauson, 1973; Zajonc & Markus, 1975). Furthermore, while the Cherry and Eaton data did not show it, these full-time steady workers might be better educated, more stable, and better organized. Thus, it is possible that the correlation between full-time employment and the child's adjustment and academic performance is not because of the employment but because of selective factors favoring the fully-

employed women. This is important to establish before conclusions can be drawn about such things as AFDC policy. If employment has a positive effect, the receivers of AFDC money might be encouraged to work, rather than discouraged. If selective factors, on the other hand, explain these correlations, forcing the nonworking mothers into employment might exacerbate an already difficult situation.

The Woods analysis does suggest both some limiting conditions to the generally positive influence of full-time employment, as well as some of the intervening links that might be involved. For example, if the daughters were left unsupervised for long periods, effects were negative, and not positive. As an example of a possible linking variable, though it might also be a selective factor, the full-time working mothers were more likely to have rule-governed households. Maternal attitudes and child care arrangements also influenced the outcome variables.

The study by Cherry & Eaton (1977) examined, in a longitudinal design, the relationship between maternal employment during the first three years of the child's life and various indices of cognitive and physical development at four, seven, and eight years of age, in a sample of 200 lower-class black families. A definite advantage of this study is that the relationships between maternal employment and child outcome variables were examined separately for each of several different situations. For example, where the husband was present, working mothers' children had higher scores than nonworking mothers' children on the Illinois Test of Psycholinguistic Ability at age eight, but this relationship was not found for families where there were no husbands. Kriesberg (1970), however, with a comparable sample, reported the opposite pattern--maternal employment was related to higher grades in school but only

when no husband was present.

Of the many relationships examined by Cherry and Eaton, most found the children of the employed mothers higher on the cognitive measures. The only finding favoring the children of nonworking mothers was that, for women with six or more children, maternal employment was associated with lower I.Q. scores (Wechsler Preschool and Primary Scale of Intelligence) at age 4. The presentation of the correlates of maternal employment was not complete in the report of this research and it is difficult to know whether or not the number of statistically significant outcomes exceeded chance, but the analysis is interesting and suggests several possible explanations for the link between maternal employment and cognitive performance in this social class. In addition to the possible selective factors mentioned above, such as family size and number of adults per child which might facilitate employment and also affect the child's cognitive ability without necessarily involving any causality between employment and the child's ability, the study suggests certain linking variables. Per capita income, for example, is increased because of maternal employment and is itself related to cognitive performance. Highest per capita income was found in the working-couple families, lowest in the separated-nonworking, and separated workers were better off than couples with nonworking wives. Thus, maternal employment might increase per capita income, and increased per capita income, at least in this sample with limited resources, might improve the child's cognitive ability.

Academic Performance of Girls

Before discussing the relationships between maternal employment and the daughter's characteristics, it will be valuable to review how maternal employment affects family functioning. Data indicate that when the mother is employed the division of labor between the husband and wife is less traditional (Hoffman, 1977). Though the woman maintains the larger share, the husband of a working woman participates more in housework and childcare. The father is less likely to have a second job, the alternative solution to inflation and the high standard of living, and thus he has more time for the family. Recent data (Hoffman & Manis, 1978) do not support the idea that working wives have more decision-making power generally in the household but rather that working increases the wife's say in money matters and the husband's say in household routines. School aged children are more likely to have household responsibilities and to participate in tasks (Hoffman, 1979; Medrich, in press). The data suggest that the working mother, except when guilt intervenes, is more likely to encourage independence in the children (Hoffman, 1974). Studies of lower socio-economic populations and one-parent families have found, as already indicated, that working mothers are more likely to have structured rules for their children and consistency between theory and practice.

While both rule-governed households and independence training are probably practical adjustments to the working-mother situation since the household functions more smoothly in her absence under these conditions, the differences between working and nonworking mothers in independence training may also reflect psychological differences. Research findings indicate low morale on the part of the nonworking mother with school-aged children, and particularly when there are only two children, the nonworking mother may over-invest in the mother role because it is the only one from which she derives a sense of competence,

contribution and self-worth generally (Hoffman, 1974; Gold & Andres, 1978b). The pattern of mothering that encourages dependency, even when that is not the intended goal, enhances and provides justification for the role of the full-time mother.

There are a number of personality variables in girls that have been found to be related to maternal employment, are consistent with these family patterns, and might be expected to affect academic performance. Maternal employment has been found in daughters to be associated with independence and a broader and more positive definition of the female role (Douvan, 1963; Hartley, 1960; Miller, 1975; Marantz & Mansfield, 1977). When working-nonworking differences are found on personality tests, they generally show the daughters of working mothers to have higher social and personality adjustment scores (Hoffman, 1974; Gold & Andres, 1978a, 1978b, 1978c; Gold, Andres & Glorieux, 1979).[1] Though the research has not directly linked maternal employment to the daughter's self-esteem (Baruch, 1972b; Kappel & Lambert, 1972), there are two patterns in the working-mother family that would suggest such a tie. Both sons and daughters of working mothers hold a less stereotyped view of males and females, although this pattern for boys is less true in the lower class (Gold & Andres, 1978b; Romer & Cherry, 1978). It is important, however, that for girls of both socio-economic classes this includes a perception that females are competent, a perception not shared with many of the daughters of nonworking women (Baruch, 1972a). It is not that males are seen as incompetent, but that females are seen as competent also (Hoffman, 1974; Romer & Cherry, 1978). Similarly, daughters of working women, and sons of working women at least in the middle class, are more likely to see men as warm, not warmer than women, but warm also. That is, the positive traits stereotypically associated with one sex are perceived in the other also without devaluing either sex. Bem's work (1975) suggests generally that sex stereotyping may

be dysfunctional to mental health, and the specific significance of this particular pattern for self-concept is apparent. In addition, the greater part played by working-mother children in household tasks and responsibilities has also been shown to relate to higher self-esteem (Smokler, 1975; Medrich, in press).

There is a great deal in the working-mother family to increase the academic-occupational competence of daughters and to contribute to positive adjustment generally. Their mothers provide models more consistent with occupational roles and achievement-career orientations; they are more likely to admire their mothers than are daughters of nonworking women (Douvan, 1963; Baruch, 1972b); they hold the female role in higher esteem, particularly with respect to competence. Since lack of independence training has been one of the factors hypothesized to account for the lower occupational achievements of females (Hoffman, 1972), this difference is a particular advantage for girls. Furthermore, although Radin (1976) has suggested that "father closeness" does not always enhance the daughter's cognitive performance, research has shown that high achieving women often have a background that includes a close relationship with a warm and encouraging father (Ginzberg, 1971; Hoffman, 1973), and the greater participation of the father in child care would seem likely to provide this. In addition, data indicate that the father in working-mother families is more likely to approve of and encourage competence in females (Hoffman, 1974). Even the fact that having household responsibilities contributes to self-esteem works in this direction (Smokler, 1975; Medrich, in press). So it seems reasonable to expect that daughters of working mothers will be cognitively advantaged and higher achievers.

While there are no definitive studies demonstrating that daughters of working mothers are higher than daughters of nonworking mothers on academic

ability and performance, the total pattern of the data suggests such a relationship. Perhaps the solidest set of findings comes from the studies of college women. Almquist and Angrist (1971) found that career-oriented college women were more likely to be the daughters of employed women, and Tangri (1969) found that college women who aspired to careers in less conventionally feminine areas were more likely to be the daughters of employed women. In studies of highly educated professional women, Astin (1969), Ginsberg (1971) and Birnbaum (1971) all found maternal employment a significant background factor. Even in younger children, occupational plans were more prevalent among the daughters of working women (Hartley, 1960; Banducci, 1967; Below, 1969; Peterson, 1958; Smith, 1969). Baruch (1972a), on the other hand, found career aspirations that included combining marriage and motherhood were more common among college women whose mothers worked only when they also perceived their mothers' combining of these two roles did not involve excessive stress. Kappel and Lambert's work (1972) also suggested that stress can mitigate the positive effects of maternal employment.

Studies of achievement motivation and maternal employment (Powell, 1963; Jones et al., 1967) did not examine the data separately by sex. These studies showed tendencies toward higher achievement motivation in the children of working mothers but differences were not significant. Since the data for daughters alone were not examined, no conclusions can be drawn from these studies, and research on this topic is yet to be done.

Considering how simple the data are to obtain, there are few studies that actually examined the relationship between maternal employment and daughters' academic performance. Four recent studies were carried out in Canada (Gold & Andres, 1978a; Gold & Andres, 1978b; Gold & Andres, 1978c; Gold, Andres, &

Glorieux, 1979). Each of these studies, two of preschoolers, one of ten-year-olds, and one of adolescents, examined relationships between maternal employment and various indices of academic ability and performance for daughters and sons separately. Although the daughters showed significantly better social adjustment when their mothers were employed in all studies (as boys typically did also), they did not show significant differences on any academic variables. The direction of the differences typically favored the daughters of employed mothers, but did not attain statistical significance. For example in the study of ten-year-olds, middle-class daughters of employed mothers obtained the highest scores of any of the groups on the language part of the Canadian Tests of Basic Skills, but they did not differ significantly from the middle-class daughters of nonemployed women, the crucial comparison group. In none of the comparisons, however, did the daughters of working mothers show lower mean scores on academic indices than the comparable group of nonworking mothers' daughters. These indices included language and math scores on the Canadian Tests of Basic Skills, self-reported grades, and attitudes toward school.

Reese and Palmer (1970), on the other hand, analyzed longitudinal data from several different samples. Using as the independent variable the mother's employment status when the child was fifteen, they found that the daughters of working mothers had higher I.Q.'s at ages six and fifteen although there was no relationship at age twelve. An interesting exception to the general pattern is a recent study by Schachter (unpublished) comparing toddlers of working and nonworking mothers. In this investigation, daughters as well as sons had lower Stanford-Binet I.Q. scores when their mothers were employed. It should be pointed out, however, that Stanford-Binet scores for such young children (20 to 36 months) do not predict well to scores at later ages.

Thus the data for daughters shows that maternal employment relates to many of the intervening variables that can be expected to lead to high achievement, but there were not many studies that actually examined the relationship to performance. Most of those that did, found no significant differences but the direction of the relationship generally was toward the daughters of employed mothers obtaining higher academic scores.

Academic Performance of Boys

The suggestion of higher academic performance on the part of working mothers' children is not borne out in the studies that examined the data for sons only. In fact, several studies have found that, in the middle class, the sons of working mothers have lower scores on various cognitive tests. Brown (1970) found lower scores on the California Achievement Test for middle-class eighth and ninth grade sons of working mothers. Banducci (1967) found that the high-school-aged sons of working mothers in the middle class had significantly lower grades than the sons of nonworking mothers, although the opposite relationship was found for the blue-collar classes with sons of working mothers obtaining higher grades (skilled-blue) or higher test scores (unskilled blue) than comparable nonworking mothers' sons. In the Reese and Palmer study already cited, a pattern opposite to that described for girls was found with boys. The combined longitudinal sample was mainly middle class and maternal employment status was obtained only when the child was 15. Sons of the employed women had lower I.Q. scores at ages six and around fifteen.

The recent series of studies by Gold and her colleagues adds further to this picture. In a study of four-year-old, middle-class, English speaking, Canadian children (Gold & Andres, 1978c) these investigators found that although the children whose mothers had been employed since birth showed better social

adjustment than children from nonworking mother homes, the sons of these working mothers had lower I.Q. scores (Wechsler Preschool and Primary Scale of Intelligence). An identical study of four-year-olds from French-speaking families also showed the better social adjustment of the working mother children but there were no I.Q. differences (Gold, Andres, & Glorieux, 1979). (The Canadian investigators attribute the difference in I.Q. findings between these two studies to the greater involvement of the French father in childrearing.)

In another study by this team (Gold & Andres, 1978b), ten-year-old children whose mothers had been employed at least since they entered school were compared to children of mothers who had not worked since the child's birth. This study, unlike the studies of preschoolers, cut across social classes. Academic data included the Canadian Test of Basic Skills, self-reported grades, and attitudes toward school. Middle class sons of working mothers scored significantly lower on both the language and the mathematics tests than did middle class sons of nonworking mothers (and also lower than middle class girls, especially those with employed mothers). On the other hand, maternal employment did not relate to the middle-class children's liking for school, self-reported grades, or educational and vocational aspirations, whereas, for working-class children, maternal employment status was related to boys' greater dislike of school and lower self-reported grades. Because the objective test data did not agree with self-reported grades, the authors interpret these self-reports as school attitude measures rather than indices of performance.

Finally, Gold and Andres (1978a) also studied adolescent children, comparing children whose mothers had been employed full time for at least four consecutive years, with children whose mothers were not employed. In this investigation

no differences were found between the two groups on any of the academic indices—the Canadian Tests of Basic Skills, the Otis-Lennon Mental Ability Test, self-reported grades, liking for school, or occupational and educational aspirations--for either sex or either social class.

One can hardly conclude from this set of findings over the last few years that maternal employment in the middle class leads to or even is associated with lower academic orientations on the part of sons, but the accumulation of results, and the marked contrast with the data for daughters, does suggest that this is an area for further investigation. While the data for lower-class boys presents a mixed picture, and some studies of middle class boys found no difference in academic indices (e.g., Nelson, 1969), there is considerable consistency in the direction of the differences for middle class boys when they are examined as a separate group.

It may seem premature to consider hypotheses to explain why the sons of working mothers in the middle class might be less academically oriented than the middle-class sons of nonworking mothers, but it might be a valuable exercise. If future research is to explore these relationships more fully to establish whether the pattern has some validity, and for whom and at what ages it has validity, these investigations should be imbedded in a theoretical context. It is important not only to establish whether maternal employment has an effect but also the process by means of which this effect takes place. With this goal in mind, various hypotheses will be considered.

Hypotheses to explain a possible adverse effect of maternal employment on middle class sons' academic orientations

Intensity of mother-child relationship for cognitive stimulation and effective motivation

The full-time housewife in the middle-class family, particularly with the current small-size-family norms and time-saving facilities, has a great deal of time for the child. Furthermore, the relative exclusivity of the mother-child relationship, intensifies her salience and effectiveness as a socialization agent. This might increase the child's academic orientation in two ways: (a) she may effectively teach the child skills thus increasing his/her cognitive ability; (b) she may communicate academic values, induce a tendency to conform to adult standards, and thus increase the child's motivation for academic achievement.

(a) Cognitive stimulation. If we consider the first of these two possibilities, that it is the cognitive stimulation provided by the mother that gives the son of a nonemployed woman an advantage, a primary question is, does the nonworking mother actually provide more cognitive stimulation? From an empirical standpoint, we do not really know. A number of studies indicate that particularly in the middle class the working mother tries to compensate for her absence by spending extra time in direct interaction with the child (Jones, Lundsteen, & Michael, 1967; Poloma, 1972; Rapoport, & Rapoport, 1972). Hill and Stafford (in press), in reporting results of a time-diary survey, indicated that less educated women reduced the amount of child care as they increased their time in the labor force but more educated women maintained closer to the same levels of child care with increased labor force participation. Goldberg (1978), in a study of middle-class preschool children enrolled in nursery school, found no difference in the amount of direct one-to-one interaction between the mother and child although the full-time employed mothers did have less "available" time with the child (when the mother was within calling distance) and less "indirect" time (when the two were in the same room doing separate activities). There is clearly,

however, a need to know more fully what effect maternal employment has on the amount and kind of parent-child contact at each of the developmental stages.

Furthermore, more research needs to be done on the effects of various kinds of contact on the child's cognitive development. While the one-to-one interaction is of particular importance in infancy, less direct interaction may be important for the older child. In a study by Lawson and Ingleby (1974), for example, moderate intensity interaction, when more poeple than just the child and the adult were together, was more significantly related to intellectual development in three-year-olds than was high intensity or one-to-one interaction.

If the mother's employment should mean less cognitive stimulation for the child, the question arises as to why this effect would occur only for middle class sons. Existing data seem to suggest that the middle-class mother is more likely to compensate for her absence than the lower class mother. However, any loss that occurs might be greater for the middle-class child because there are several studies that indicate that the middle-class mother is a more effective teacher and a greater source of intellectual stimulation (Hess & Shipman, 1965; Hess, 1970; Bernstein, 1964; Goldberg, 1978). In fact, in Goldberg's study of four-year-olds, the children of the better educated mothers, those with between fourteen and seventeen years of schooling, showed better cognitive development when the mother spent more time teaching and preparing the child for kindergarten; but the children of mothers with no more than a high school education obtained lower scores on the cognitive measures when their mothers spent more time with them in such activities. Such surprising results make one wonder if there are differences between the two groups in whether the more educated women choose to work with the brighter children to enhance success, while the less educated work more with the less

able children, to avoid failure. Nevertheless, the data do seem to add further evidence to the case that the middle-class mother is a positive stimulus and an effective teacher while the lower-class mother is not. If this is true, maternal employment might take more away from the middle-class child than the lower-class.

But what about middle-class girls? First, it is possible that mothers provide a more cognitively stimulating environment for sons than for daughters. The study by Bing (1963) of cognitive style in girls suggests this may be so, but the study by Block, Block, and Harrington (1974) suggests that mothers are equally effective teachers with daughters as with sons even though fathers are not. However, it is also possible that whatever loss the middle-class daughters of working mothers experience in cognitive stimulation is more than compensated for by the advantages that maternal employment brings daughters, as discussed earlier. Thus, possibly both daughters and sons in the middle class get less of a dose of maternal stimulation when the mother is employed, but the daughter also gets considerable benefits while the son does not.

(b) Increased motivation. The second part of the hypothesis we are considering is that the middle-class son, whether or not he receives greater cognitive stimulation, is more effectively motivated for academic achievement when his mother is not employed. One of the most interesting results of the longitudinal work of Moore (1975), begun in England in the Fifties, which compared children who received "exclusive mothering" during the first five years of their lives with children who received substitute daily care of any kind for at least twelve months prior to that age, is summarized as follows:

> "in boys, exclusive full-time mothering up to school age is correlated . . . with a significant tendency to sensitive, fastidious conformity, self-control, timidity and academic interests". (p. 359, italics ours)

> ". . . the child tends early to internalize adult standards of behavior, notable self-control and intellectual achievement, relative to other children of equivalent intelligence and social class . . . . For boys, this effect tends to persist into adolescence and involves anxiety for adult approval, with consequent inhibition of assertive behavior, fear of physical hurt and timidity with peers." (p. 270)

Moore found that the "exclusively mothered" boys as adolescents were more likely to "stay on at school and study for examinations" (p. 270). The effects of the two patterns on girls in the study were described as "less clear".

Although Moore's study is not identified as a study of maternal employment almost all of the "diffuse-mothering" subjects involved the mother working while none of the "exclusive-mothering" cases did. And, in any case, the phenomenon under investigation is the same. In fact, it is interesting to note that the pattern describing the "exclusive-mothered" boys is very similar to the pattern describing first-born children (McArthur, 1956; Warren, 1966; Adams, 1972; Kammeyer, 1967). First-born children have been observed to be higher academic achievers but also over-conforming and anxious. The first-born situation is comparable to exclusive mothering in that it involves an intense mother-child relationship. At a symposium on daycare at the 1979 meeting of the Society for Research in Child Development, Jerome Kagan commented, after reviewing data that suggested an absence of adverse effects of the day care experience, that in his view the statement that could most clearly be made about exclusive maternal care during the early years was that it intensified the child's sensitivity to maternal socialization.

It is possible then that higher academic achievement of the nonworking mothers' sons in the middle class is part of a pattern of particular sensitivity to maternal influence which may include, along with higher academics, over-conformity and inhibition. Maternal employment research has not investigated

this possibility. Earlier in this paper it has been pointed out that with the smaller family size now prevailing in the United States, and with the efficiences that technological advance have brought to household operations, mother-child interaction may be intensified when the mother is not employed. Not only does the mother have more time available, but, in the absence of employment, the mothering role may take on an inordinate importance. Under these circumstances, the middle-class son of a nonworking mother may have a heavier dose of mothering than is necessary, or even beneficial.[2] The common response to the finding that one group shows higher academic performance is that such a group must have had a superior socialization. In fact, however, higher academic performance might be obtained at a cost in mental health and self-fulfillment. Furthermore, it would be valuable to know more precisely what cognitive advantages, assuming there are some, are involved. The data so far deal mainly with school performance, or with standard achievement tests and I.Q. scores, which are highly related to school performance. Are these boys more creative? Do they eventually achieve eminence in greater numbers? These are questions that must also be considered.

It is also possible that the middle-class nonworking mother places particular emphasis on achievement in her children. This is consistent with data from two studies of adolescents. Birnbaum (1975) found that able, educated women who did not work were more anxious about their children's achievements than a comparable group of employed professional women. Gold & Andres (1978a) also found that nonworking mothers exerted more achievement pressure on their children.

These explanations for why the nonemployed mother might be an influence for high achievement motivation also apply more to the middle-class than the lower-class situation. Middle-class mothers are more likely to stress achievement values generally and they have smaller families and fewer household burdens.

The Hill and Stafford (1978) time-use study indicates that middle-class mothers interact more with their children. Thus, the mother-child interaction is capable of greater intensity.

For girls, as noted above, any motivating influence exerted by the nonworking mother may be insufficient to overcome the advantages of the working mother. Though she may encourage achievement, she is not a model of achievement and competence for her daughter. The dysfunctions of a close, intense relationship for a daughter have been discussed elsewhere (Hoffman, 1972). Because they are of the same sex, because of the greater protectiveness (Hoffman, 1977) and encouragement of dependency (Fagot, 1978) that girls experience, the nonworking mother may not have the same effect on girls as on boys.

The hypothesis that the middle-class nonworking mother at this point in time may be over-socializing the male child with the result that he does well in school but is inhibited, conforming, and fearful, like the exclusively mothered boys in Moore's research, has an interesting aspect to it. The concern sometimes expressed by psychoanalytic writers in previous years was that maternal employment would lead to a diffusion of sex roles in the family and the male children would thus not achieve masculine identity. Though there is much less concern about such matters these days, it is interesting to note that the present analysis would suggest that it is maternal nonemployment rather chat would "femininize" boys.

Inadequacy of employed mothers' supervision of sons

Maternal employment may involve less supervision or more independence training or more autonomy for the child, as suggested above. This might result in lower cognitive performance for boys but not girls for two reasons: (a) prevailing childrearing patterns in the United States may over-control girls

and inadequately train them for independence, but boys may receive the optimum balance or too much. Thus, if maternal employment lessens supervision and/or increases independence training for children, it may improve the conditions for the achievement of daughters but leave boys with too little supervision or too much or too early independence training; (b) maternal employment may lead to a greater reduction in the supervision of boys than of girls.

The observation that girls may suffer from too much socialization while boys from too little was made by Bronfenbrenner twenty years ago (196_1). More recently (Hoffman, 1972; Hart, 1979; Fagot, 1978), data have documented that girls receive less independence training and autonomy-granting than boys, and a link has been suggested between this pattern and academic achievement problems in females (Hoffman, 1972). We have already indicated that maternal employment may increase independence training for girls and that this may be one of the explanations for the achievement advantage enjoyed by daughters of employed mothers. If boys, however, are already given sufficient or even too much autonomy and independence encouragement, any further change in this direction might have a negative effect.

Testing this hypothesis requires exploring a very important topic -- the whole question of how much and what kind of independence training and autonomy granting, at each age and for each sex, affect achievement patterns and what the effects are. The complexity of these issues has been brilliantly spelled out by Maccoby and Masters (1970), but they have never been sufficiently researched. This is an important area of study not only for understanding the effects of maternal employment, but also for understanding the link between socialization practices and cognitive development.

Furthermore, there is a need to understand more fully the kinds of differ-

ences in independence training girls receive in comparison to boys. Data seem to indicate that boys are encouraged in outside-the-home independence while girls are given more training in in-the-home activities (Collard, 1964; Hart, 1979; Saegert & Hart, 1976; Fagot, 1978; Duncan, Schuman & Duncan, 1973). Data also indicate that girls are allowed closer proximity to mothers and are given more actual assistance on tasks (Fagot, 1974; Fagot, 1978) while boys are given more restrictions for actual or potential misbehavior (Hatfield, Ferguson, & Alpert, 1967; Minton, Kagan & Levine, 1971). Not only do we need to identify more fully these differences but also to understand what the effects are for each sex at different ages. Too early independence training, for example, can backfire and what is too early for boys may not be too early for girls.

The second part of this hypothesis raises the question of whether employed mothers are more likely to leave boys unsupervised than girls. American parents see daughters as more vulnerable and in need of protection at all stages of childhood (Hoffman, 1977). From this standpoint, daughters of employed mothers are more likely to be provided with alternative child care or protective surveilance than sons. On the other hand, boys are seen as more likely to misbehave and so may be given surveilance from that standpoint. The only adequate data on this for middle-class families are reported by Gold & Andres (1978b). In their study of ten-year-olds, children whose mothers indicated they were unsupervised for at least two periods during the day or who were left without a substitute supervisor while their mothers were at work were classified as unsupervised. Only one of the 126 nonworking-mother children was so classified while twenty of the 97 working-mother families were classed as unsupervised. Of these twenty, sixteen were boys -- eleven middle class and five lower class. In

Woods' study (1972) of children about the same age attending school in an area described as a "black ghetto", more girls than boys were left unsupervised. Older research on lower class delinquent boys (Glueck & Glueck, 1957) did find that employed mothers were more likely than nonemployed to have unsupervised sons, but girls were not studied. Thus the data suggest some lack of supervision by working mothers but they are not adequate to tell us about differences with respect to social class or sex of child.

The whole issue of supervision needs further study. To what extent are boys and girls at each age level left unsupervised in both employed and nonemployed families? What do the children do during these unsupervised periods? If they are unsupervised is there phone contact with the parent or some other adult? And what is the effect of unsupervised time on the child? In the Woods research, the unsupervised girls scored lower than supervised children on various cognitive indices, but whether there is a causal connection or whether lack of supervision and cognitive deficits both reflect something else about their situation was not addressed in the study. Depending on the age of the child and the circumstances, it cannot be assumed without investigation that periods without supervision have a negative impact on the child.

Thus, there is little evidence for whether the working mother leaves sons or daughters more on their own, or whether any such differences explain the lower academic scores of the sons, but exploring this area empirically would yield data valuable beyond questions of maternal employment.

Maternal employment may undermine father's role as a model of high achievement

A number of hypotheses can be generated suggesting that maternal employment undermines the father's role, or the male role generally, so that boys do not strive for academic competence: (a) when the mother works, the father and/or

the male role are seen as less competent or attractive, and thus the boy's academic performance is adversely affected; (b) when the breadwinner role is shared by both parents, there is less pressure on sons to achieve; (c) if competence is not seen as a peculiarly masculine trait, there is less pressure on boys to be competent. The data, which will be reviewed below, do not seem as consistent with these hypotheses as with the previous ones, but since these often come up they are worth discussing.

In considering the first of these hypotheses, that maternal employment leads to a devaluation of the father or the male role, there are data and they do not seem to be supportive. First, it is true that sons of working mothers see women as more competent than sons of nonworking mothers, and this is more marked in the middle class (Gold & Andres, 1978b; Romer & Cherry, 1978), but it is not true that they see men as less competent (Broverman, Vogel, Broverman, Clarkson & Rosenkrantz, 1972; Romer & Cherry, 1978; Gold & Andres, 1978b).

Second, there are data that indicate a strain in the father-son relationship when the mother is employed but these data obtain only in the lower class, not in the middle, whereas the indications of academic problems with working mother sons are found in the middle class. Thus Douvan (1963) and Propper (1972) each found that adolescent sons of full-time working mothers in the lower class were less likely than sons of nonworking mothers to name their fathers as the person they most admire; McCord, McCord, and Thurber (1963) found in a study that included only lower class boys that those whose mothers were employed full time during the son's preadolescence were more likely than nonemployed mothers' sons to indicate disapproval of their fathers. Kappel and Lambert (1972), in their study of children nine to sixteen years old, found that the

sons of full-time working mothers in the lower class evaluated their fathers lower than did the sons of other full-time working mothers and lower than did the sons of part-time or nonworking mothers in any class. And, in the more recent study of Canadian ten-year-olds by Gold & Andres (1978b) data were obtained from parents as well as children and the lower class fathers with employed wives described their sons more negatively than those with nonemployed wives. None of these studies, however, found indications of father-son relationship strain in the middle class.[3] Elsewhere (Hoffman, 1979) we have suggested that in the lower class maternal employment may still, despite its prevalence, reflect a failure on the part of the father. As maternal employment becomes more accepted as the normal pattern throughout the social classes, this father-son strain may disappear. In any case, available data do not support this explanation for the cognitive disadvantage of middle-class boys, nor is there any evidence that father-son difficulties have an adverse effect on the academic performance of lower class boys. It may be that admiration of the lower-class father does not operate as an academic incentive for boys.

There are no data bearing on the two alternative forms of this general hypothesis -- that seeing the breadwinner role and competence as something men share with women diminishes academic motivation. Middle class sons of employed mothers do have less sex stereotyped views (Broverman, et al., 1972; Derdiarian & Snipper, 1979; Hoffman & Nye, 1974) but there is no empirical basis for linking this to academic performance.

Boys' I.Q. may be more susceptible to maternal influence

Because of genetic factors, boys may be more vulnerable to environmental effects particularly with respect to I.Q. This hypothesis has been suggested by Jensen (1971) and others. An important work supporting this view is the

study by Bayley and Schaefer (1964). However, recently Kamin (1978) has reanalyzed the Bayley-Schaefer data and this reanalysis suggests that there are no sex differences in the susceptibility of I.Q. to environmental influence. Thus the hypothesis in general has been seriously undermined. Furthermore, it does not seem particularly helpful in explaining the maternal employment data because one must still deal with why middle class boys more than lower class are affected, and why the effect on boys is negative but, in the Reese and Palmer study, there were I.Q. effects for girls that were positive.

The father's participation in child care

There is one additional hypothesis to consider which is not a causal explanation but focuses on an ameliorative factor. Gold and her colleagues suggest that cognitive deficits in sons can be avoided by the active involvement of the father in parenting. This is the hypothesis invoked by these researchers in explaining the difference between the French and Anglo subjects in their work with middle class preschoolers; they suggest that working-mother sons in the English-speaking families but not in the French-speaking families had lower I.Q.'s because of the father's greater involvement in French Canadian families. While evidence is presented supporting the French-Anglo difference, the researchers find no relationship between father involvement and boy's I.Q. in either sample of preschoolers. In their older samples, however, they find some support for the hypothesis. Among adolescent sons of employed mothers, father interaction was positively related to self-reported grades (1978a). In the study of ten-year-olds (1978b), a solid relationship was established between paternal involvement and both self-reported grades and educational aspirations for the lower class sons of employed mothers; but for middle class

sons, only one of the relationships examined was significant: a positive relationship was found between the mother's (not the father's) estimate of paternal involvement and the son's educational aspirations. The relationships for all of the working-mother groups between paternal involvement and both self reported grades and educational aspirations were in a generally positive direction, however, while the directions were more often negative among the nonworking groups. Unfortunately, relationships between paternal involvement and scores on the Canadian Tests of Basic Skills were not reported, and we have already noted that self-reported grades are not related to this more objective measure.

The negative relationships for the nonemployed mother group are intriguing. Although the father as teacher of daughters has been questioned as an asset because of more sex-stereotyped attitudes on the part of fathers, (Pleck, 1977; Block, Block, & Harrington, 1974), it is usually assumed the father is an effective teacher of sons (Radin, 1976). But the negative relationships in the nonemployed mother sample reported by Gold and Andres, just as the negative correlations between maternal teaching and performance among lower-class preschoolers reported by Goldberg (1978), raise questions about whether these reflect poor teaching or a selective factor. For example, it is not impossible that fathers become involved when their wives are working to share the childrearing role, but they may get involved when their wives are not working because the child is having academic difficulties. In any case, the role of the father in mediating the effects of maternal employment is an interesting one that needs further investigation.

* * *

In this section we have reviewed the data on maternal employment and various cognitive and academic indices obtained with boys. Since existing data indicate that there may be a negative relationship for middle-class boys, several hypotheses have been suggested to account for such a relationship and data presented that bear on the various hypotheses. It is important to reiterate

that much more data are needed before concluding that such a relationship actually exists, but in studying the relationship between maternal employment and the middle class son's academic performance, we must also try to understand the process that is involved. If these variables are connected, what are the steps in between? What is there in the full-time mothering situation that affects the son's academic performance, and do the advantages obtained take a toll in other aspects of the child's psychological development? If only the middle-class boys show lower performance when the mothers work, is it because they alone receive special academic inducements from the nonworking mother -- academic inducements that may be dysfunctional to other aspects of development? Or is there a potential loss for all, but one that is overcome in the lower class and for daughters by other advantages of the working mother situation? There is a great deal here that we do not know -- not only about maternal employment, but, more broadly, about how childrearing affects cognitive ability.

RESEARCH NEEDS

In sketching the relationship between maternal employment and the child's academic performance, we have pulled data from a wide variety of studies. We have suggested that maternal employment has a positive effect on girls, but the actual data document more the intervening processes than the relationships between maternal employment and academic indices. For boys, there are almost no data on the intervening processes, and the case has been built rather on a few statistically significant relationships between maternal employment and various indices of academic performance. While we have generated a number of hypotheses to explain lower academic performance by middle-class sons of working mothers, the phenomenon itself is far from proven.

In constructing this review, it was necessary to adopt a loose definition of maternal employment for it varies from study to study, stick to the measures of academic performance that were actually used apart from what should have been used, work with the sample and design limitations that exist. There are really no systematic data for either boys or girls. Throughout the review we have criticized measures of the independent variable and the dependent variables. We have also suggested various conditioning variables, variables that may alter or affect the influence that maternal employment has, and also intervening variables, variables that are affected by maternal employment and which in turn affect the child academically. Investigations are needed that more carefully conceptualize each of these -- independent variables, dependent, conditioning and intervening -- in order to understand what the effects of maternal employment are, and in order to attempt to modify the effects deemed undesirable in either the working or the nonworking situations. These various issues will now be considered in outlining research needs.

Independent variable: maternal employment

Maternal employment patterns vary widely. Is it full-time employment or part-time? Continuous or discontinuous? If discontinuous, is it discontinuous by year or season? By regular or irregular intervals? To what extent do the mother's working hours overlap with the time the child is in school? Effects of part-time work can be quite different from effects of full-time work as noted in studies discussed above by Woods (1972) and by Kappel and Lambert (1972), and the effects may differ in different socioeconomic status groups. Goldberg (personal communication) suggests, in fact, that maternal employment be operationalized as a continuous variable in terms of the number of hours per week that the mother is employed.

Another aspect of the conceptualization of maternal employment has to do with how long the mother has been employed, or what was the child's age when she started work. Most studies operationalize maternal employment as simply current work status, or, in retrospective studies, as work status "when you were growing up". The research by Gold and her colleagues is an improvement in that in each study the mother has been employed for a certain minimum number of years. In addition, in their studies of 10-year-olds and adolescents, they examine the duration of employment since the child's birth as well as current status. Romer and Cherry (1978) obtained employment histories and have measures of employment status during specific developmental periods. Furthermore, their research examines the relationships separately for children of different ages thus enabling one to see if it is the child's age at the time of employment, or the child's age at the time of measurement that is important. The advantage of this has been pointed out previously (Hoffman, 1979): if effects of maternal employment are less in samples of adolescents than in samples of grade-school children, as may be the case, it is important to know whether this is because earlier effects wear off by adolescence, or if many of the adolescent children's mothers did not start work until the child was older.

The Gold and Andres analysis of adolescents is interesting in this connection. Although they found no working-nonworking differences in the academic measures for the adolescent sample, length of employment was related to higher self-reported grades in the middle class and lower in the blue-collar class, a pattern quite different from what the usual working-nonworking comparison data tend to show. The complications of this kind of analysis, however, are also brought out here. In this study there was good matching

between currently employed and nonemployed groups, but introducing duration of employment throws that matching off. For example, while the groups representing current employment status may have been matched for education, the long-employed middle class mothers may have been distinct; they may have been highly educated professionals. Thus, the correlation with duration of employment for the middle class might reflect education rather than the employment pattern per se. Romer and Cherry had a similar problem. They found that employment during the child's early years was more important than current age for diminishing sex stereotypes. They interpret this in terms of a critical period for the development of sex stereotypes, but employment during the early years could reflect a greater career commitment by the mother and thus these women might be less traditional in many ways. The combination of examining current employment status and employment history requires a more complicated research design than has been used in these studies.

Longitudinal research is another way of approaching this task, but even longitudinal data do not provide a perfect solution. There are comparable problems in matching to consider, and for both longitudinal and retrospective research, account must be taken of the prevailing social climate that existed when the employment occurred, i.e., was maternal employment a common or an unusual pattern? Had a longitudinal study of maternal employment and infancy been undertaken twenty years ago, as in fact it was (Moore, 1963), would we be able to conclude much about this pattern when it occurs today? In Moore's original sample, and this is not the one in the more recent analyses, the employed mothers of infants were very atypical and rejecting mothers.

In short, there is a definite need for research which focuses on the age of the child when the mother begins work, the duration of the employment,

and the age of the child when the effects are observed. Both retrospective cross sectional data and longitudinal data are needed here, but the designs must also be sensitive to the need for controls, the socio-historical context, and the inescapable problem that maternal employment involves self-selection.

Still another aspect of the independent variable has to do with the level of the job in both an absolute sense, i.e., whether professional, semi-professional, etc., and in some relative sense, such as whether it is in accord with the mother's education or with the social class of the family as determined by the father's occupation. Employment as a professional might be quite different from employment status per se. This was brought out in a study by Frankel (1963) in which comparison was made between high and low achievers in a sample of intellectually gifted high-school boys matched on I.Q. Low achievers were likely to have working mothers, a pattern consistent with the bulk of the data for boys described above, but the analysis also showed that high achievers were more likely to have mothers who were employed in a professional capacity.

Dependent variable: academic attitudes and behavior

Academic indices have included I.Q. tests, standard achievement tests, grades in school, college plans, occupational goals, school attitudes, over- and under-achievement patterns and attaining some degree of success as an adult, though none of these has been examined systematically across age, social class, and sex. For example, there are no studies of adult success and maternal employment for sons, and no studies of over- and under-achievement for daughters. Furthermore, there are no studies of creativity or curiosity or cognitive styles, and, as noted above, the only studies of achievement motivation combined the male and female subjects. Furthermore, there are no thoughtful or complex

approaches to studying attitudes toward education. For example, are daughters of working mothers more likely than daughters of nonworking mothers to view education as important for adult roles?

We have criticized elsewhere the "shot-gun" approach which uses whatever data are at hand, and pays no attention to theory or the many levels that intervene between the mother's employment status and a child characteristic. Nevertheless, it is somewhat strange that relatively few studies have used data banks (e.g., ACE; Radcliffe Data Resource and Research Center) or other regularly accumulated bodies of statistics to examine various indices by mother's employment status. For example, schools often maintain records of I.Q. and achievement scores. While maternal employment status is probably not available in these records, obtaining employment histories (and other relevant information such as family composition and father's occupation) from the mothers of children in such schools would be an inexpensive way of at least examining the relationships between maternal employment occurring at certain ages and measures of academic performance at different ages. It should be pointed out again, however, that simple relationships between the independent and dependent variables that do not reveal the underlying processes may be misleading, particularly when they are based on data collected at an earlier time when the social climate surrounding maternal employment was quite different.

Conditioning variables: sex, age, social class, family structure, support systems, mother's education, and attitudes

There are a number of variables that influence what effect maternal employment will have. In several previous reviews (Hoffman, 1963a; Hoffman, 1974), we have stressed the need to examine the effects of maternal employment under

specified conditions, or for different subgroups. If maternal employment has an effect, it is not likely to be the same for all groups under all circumstances. An example we have used in the past is juvenile delinquency which does seem to relate to maternal employment in the middle class, at least for boys, but does not show a relationship in the lower class. And throughout this paper we have suggested that maternal employment is very likely to have a different effect on the cognitive orientations of girls than boys, of lower class than middle class children, and specifically of middle-class boys than lower-class boys. We have also cited data that suggest effects are different in one-parent families, in poverty groups, in families of different sizes, in different cultural groups, and for different age children. In other publications, we have reported data showing that parental attitudes may have an important influence on how employment affects the child's academic performance (Hoffman, 1963b). This is by no means to say that maternal employment has no effect, though this conclusion has often been drawn (Rallings and Nye, 1979). This is to say there is an effect, but it is different in different situations, for different conditions, and thus the conditions must be considered in the research design and the statistical analysis. Since there is already a great deal written on this topic (Etaugh, 1974; Hoffman, 1963a; Hoffman, 1974; Wallston, 1973), and conditioning variables have been discussed throughout the review, only certain less obvious or more troublesome ones will be discussed here. There is no attempt to be all inclusive.

Age. The age of the child as a conditioning variable has been discussed more fully in a recent paper (Hoffman, 1979). The child has different needs and vulnerabilities at different ages and thus the impact of maternal employment is not likely to be the same. At adolescence, for example, maternal

employment may fit the needs of children better than nonemployment does (Hoffman, 1979). During infancy, the conditions are extremely different, of course. The task of this review did not include discussing employment during the child's infancy, but in fact the stimulation the infant receives and the amount of one-to-one interaction, as well as other experiences, have a profound effect on the child's later cognitive abilities, and so studies of maternal employment during infancy are very germane to the topic. With the possible exception of the toddler study by Schachter cited above, the data that exist do not support the hypothesis that maternal employment during infancy will be dysfunctional to the child's development, but there are very few investigations of this age group (Hoffman, 1979).

Social class. The conditioning variable, social class, has been discussed a great deal already in this review, but it is important to point out that very crude distinctions have been used here in order to capture the existing data. Social class actually needs more refined measurement in studies generally, but maternal employment issues further complicate matters. If social class is defined by the father's occupation, the employed women may be different from nonemployed because they may have more education and the families will be different in per capita income. Per capita or total family income would, of course, be misleading as the operationalization of social class since the educational level of the employed mothers would be lower in this case, and the life styles of the families placed in the same class might be very different. Since father's occupation is the usual basis for classification, it is important to keep in mind that working mothers are often more educated than nonworking mothers in the same class and this difference might provide an advantage for the child's cognitive performance which is not an effect of the

employment. The study by Jones, Lundsteen, and Michael (1967) may be a case in point. The sixth-grade children of the professionally employed mothers had better reading skills than the children of nonworking mothers in the same social class. The employed mothers read to the children more and laid greater stress on educational goals. They were also, however, better educated and it is difficult to know which variable was the more important--education or employment.

Family structure. The family structure variables that operate as conditions include those already mentioned -- size, number of adults, presence of father -- and also the child's ordinal position which defines his/her place in the structure. (Division of labor and husband-wife power are viewed here as intervening variables.) Only one study cited in this review, Cherry and Eaton (1977) examined data to see if the relationships between maternal employment and the child measures were different for intact and single-parent families, and there were no studies of middle-class, single-parent families discussed. In Heatherington's interesting study of how divorce affects preschoolers, she found that maternal employment that preceded the divorce helped the mother to cope emotionally and financially with the situation and thus eased the trauma for the child, but maternal employment that started at the time of the divorce, though helpful to the mother in some respects, exascerbated the situation for the child in that it added to the disruption in routines and may have increased the sense of parental loss (1977). The sheer prevalence of divorced and single-parent families today, and of maternal employment in these families, makes this a crucial area for investigation.

Another variable that needs to be considered is the child's ordinal position. In one of the hypotheses discussed, we took up the possibility that the modern mother who is not employed may provide her son with a heavy dose of

mothering that might result in good school performance but at a price in spontaneity. This pattern was compared to the "first-child" effect. If ordinal position and maternal employment status exert similar influences, it would be interesting to see how they interact. It is possible, for example, that maternal employment for first-born sons achieves a better balance between adequate stimulation and an overly intense mother-child relationship than does either the nonemployed-first-born combination or the employed-later-born. Both ordinal position and family size need to be examined as conditioning variables and not only as controls.

Support systems. Another group of variables that will influence the effects of maternal employment has to do with the support systems that are available. Support systems can include a wide variety of variables: community attitudes toward maternal employment, household efficiencies available, child-care facilities, emergency-relief possibilities, opportunities for finding satisfactory employment which may include the availability of jobs, career counseling, and retraining possibilities. The combination of employment and motherhood is a heavy load and the availability of support systems may determine the effect of employment on the mother's morale. Several studies attest to the significance of morale, or role satisfaction, as an intervening variable which mediates the effects of maternal employment (Yarrow, Scott, DeLeeuw, & Heinig, 1962; Birnbaum, 1975; Kliger, 1953; Kappel & Lambert, 1972; Woods, 1972; Baruch, 1972a; King et. al., 1968). Though these studies have generally not focussed on academic dependent variables, the data are relevant and there is a general picture that when maternal employment involves stress, strain, and excessive guilt, the effect on the child's social-emotional adjustment is negative, but when it involves a boost to the mother's morale, the effect is

positive. Support systems may enable the mother to have more time with the child, as well as to make that time more valuable for the child's development. Thus support systems are clearly important conditioning variables. Furthermore, focusing on the support systems is important for social policy decisions because it is here that action is possible.

Day care can be conceptualized as a conditioning or an intervening variable, and studies that focus on the effects of day care per se, will be considered in the following section. Some recent studies, however, (Owen & Chase-Lansdale, unpublished manuscript) have compared children of employed and nonemployed mothers all of whom are in day care. These studies are valuable, but it is important to note that at-home care is more commonly used by employed mothers of preschoolers (Emlen & Perry, 1974; U.S. Department of Labor, 1977) so these are setting-specific studies. Furthermore, studies of this sort need to control on a number of variables for the comparisons to be meaningful. There are often special reasons for the presence of the nonworking mothers' children in day care and these reasons need to be considered in interpreting any differences found. Furthermore, ordinal position of the day-care children may be different for the two groups. A working mother is not likely to use day-care facilities for the oldest child since she would still have to work out arrangements for the younger ones. At-home care may seem a more logical solution when there are several preschoolers.

Attitudes. A broad category of conditioning variables includes the attitudes -- particularly the attitudes toward employment -- of the mother, her husband, and other relevant persons. In the foregoing review, it has been noted that among the lower-class group studied in research on intact, mainly white, families, maternal employment may still not be seen as desirable and normative. For this

group, the traditional sex-role ideology may still prevail, and maternal employment may be taken to mean the husband is a failure. In the lower socio-economic groups, predominantly black, with mother-headed households, on the other hand, it has been suggested that maternal employment is seen as a natural pattern and means of coping. Because of these different attitudes, the significance of maternal employment for the child will be quite different. These are, however, only hypotheses and they should be subjected to empirical test. First, research should seek to establish if the differences in the apparent effects of maternal employment in the two groups are because of different attitudes. This could be examined by obtaining measures of the attitudes and seeing if effects vary within a given class for the different attitude groups. Such empirical tests are necessary because there are other possible explanations for the data that now exist. Thus, it is also possible that the advantages of maternal employment for the very low socio-economic groups reflect either selective factors or possibly simply the extra money, as suggested earlier. When resources are scarce, any increment can have a noticeable effect. Second, for this particular example, research should also examine what particular differentiating features of the two socio-economic groups is important in influencing attitude differences. They differ on income, family intactness, and race. Which of these is the most important? What are the attitudes and effects of maternal employment, for example, in the black <u>middle</u> class?

The attitudes that surround maternal employment, however, clearly can influence its effects sometimes leading to resentment on the part of the mother, father, or child; sometimes to disrespect for the father; sometimes to a sense of family cooperation and sharing of responsibilities. They can lead to guilt on the part of the mother which can in turn lead to over-compensation toward the child, or to a realistic approach to the situation in which the difficulties of employment are realistically handled. As was pointed out in the introduction, most of the studies of

maternal employment found no differences and while part of this might be explained by poor research designs, part may be explained by the fact that most mothers compensated for their employment by spending extra time with their children to make up for their absence and worked through the problems of adequate substitute care. This is important for as we move into a period when maternal employment is normative and accepted, we may do away with some of the over-compensatory responses but we may also eliminte some of the realistic responses. Past research findings obtained when different social attitudes prevailed may not be generalizable to the new social climate.

Intervening variables

It is not always easy to distinguish intervening variables from conditioning variables. Intervening variables in this report refer to effects of maternal employment which in turn affect the child. Conditioning variables designate more the setting or climate within which employment operates, or factors that interact with maternal employment to influence its effects. The intervening variables can be dependent variables in studies of maternal employment and often are. They are intervening in this discussion because they lie between maternal employment, the independent variable here, and the child's academic orientations, the dependent variable. As we have stated before (Hoffman & Lippit, 1963), the causal connection between any family variable and a child characteristic is too broad to be covered in one leap. There is a need to conceptualize and operationalize the many steps in between, i.e. the intervening variables.

The intervening variables relevant here include the mother's emotional state, the power relationship between the parents, the division of labor in the household including the father's role in child care and the child's responsibilities, attitudes that are affected by maternal employment and in turn affect the child, childrearing patterns, child-care arrangements, and the

child's socio-personal adjustment, self-concept, and other relevant personality traits. In the above discussion of maternal employment effects on daughters, most of the reported studies examined employment effects on these variables. Data suggested that daughters of employed mothers received more independence training, had more household responsibilities, were more likely to view females as competent, had fathers who were more active in child care, and had parents with more sex-equalitarian views. These daughters were more independent, active, and better adjusted. All of these variables have been linked, to at least some degree, with academic orientations, but for many the case is not yet clear.

Take for example the father's role in childrearing. The possiblity has been raised that the father's increased participation may compensate for the mother's absence, but we have also pointed out that we don't know much about how paternal behavior affects academic qualities. On the one hand, the father is often seen as the independence trainer important in weaning the child from the early mother-child dependency. Furthermore, research suggests that the father may be more important than the mother in fostering achievement motivation (Block, Block & Harrington, 1974). As noted above, studies have shown that high-achieving women often have backgrounds that included close relationships with fathers who encouraged them in independence strivings and achievement behavior. These considerations lead one to expect that the greater participation of the father in child care that results when the mother is employed will enhance the academic ability of both boys and girls. But on the other hand, Radin (1976) suggests that father interaction has a positive effect on sons' cognitive development but little effect on daughters'. Furthermore, there is considerable evidence that fathers more than mothers treat girls and boys differently and more in line with traditional sex-stereotyping (Lamb & Lamb, 1976; Fagot, 1974;

Rubin, Provenzano, & Luria, 1974; Hoffman, 1977), and from this standpoint, one might expect, as does Pleck (1975), that the increased participation of fathers will be dysfunctional to the academic-career achievements of daughters. However, it is also possible that the data that now exist on fathers as a group reflect the differential participation of fathers and mothers in childrearing that generally prevails. As fathers become more active and involved, the differences that have been demonstrated between maternal and paternal behavior may diminish. Furthermore, while men generally hold more traditional sex-role attitudes than women, the husbands of employed women are less traditional than those of nonemployed. Part of this may reflect a selection factor, but part also seems to be an effect of having a working wife. An example we have used previously (Hoffman, 1979) is that a man becomes more aware of sex discrimination in pay scales when his own family income is diminished by the policy and, in general, attitudes are often changed by the actual experience. Clearly more research is needed to understand how paternal involvement affects cognitive functioning.

Similarly, while a pretty solid case has been made linking independence training to cognitive abilities in both boys and girls, there are many unanswered questions about how much, at what ages, and what kind of independence training. And, while it may seem obvious that sex-equalitarian views will benefit girls, how will it affect boys' motivation? Thus, to some extent, the research that needs to be done involves studying the tie between these variables and the academic ones. There is a great deal of basic research needed to identify the antecedents of cognitive performance that are closer to the outcome variables than is maternal employment. In addition, the links between maternal employment and these antecedents need further examination but these studies can be carried out as separate research projects.

At the same time, some studies can carry the investigation all the way through from employment status to cognitive indices, measuring the various intervening variables. We have already indicated, for example, that if the mother is under strain because of her employment, guilty because of it, or happy because of it, her behavior toward her child will be different, and the child's characteristics will be different. A study tapping each of these variables and tracing the process through would be much more valuable than any that simply examined the mother's employment status and the child's I.Q..

Thus, whether the research is carried out by different investigators, some studying maternal employment in relation to what are here called intervening variables, and others studying the relationship between the latter and the cognitive indices; or whether the tie between maternal employment and the cognitive indices are examined in a single project; the value of the work will be greater if attention is given to the steps in between. A full exploration of the possible intervening variables is too big an undertaking for this paper, but some additional ones will be discussed as a guide to future research.

An extremely important intervening variable is the mother-child interaction. What does the nonworking mother do with her child and which of these behaviors is relevant to cognitive development? How is the mother-child interaction different in the working-mother home? Is there something about the intensity of the mother-son relationship in the nonworking home that increases either the cognitive ability or the motivation of the child? And are there certain vulnerabilities that accompany this academic advantage? A great deal of research is needed on the amount and kind of mother-child interaction that takes place, how this interaction affects cognitive skills and academic attitudes, and how maternal employment affects these interactions, at the

different ages, for both sexes, and for different socioeconomic groups.

Also important are questions about how maternal employment affects achievement pressures on boys and girls. Are there differences between the parental pressures for achievement in employed-mother and non-employed mother families? Does the model of the dual-occupation family affect the motivation of boys and girls?

Another group of intervening variables that have been discussed throughout this review include supervision, autonomy granting, and the encouragement of independence. These variables need to be conceptualized much more specifically than they have been. Considering these in a more specified way, what effect does maternal employment have on them? How do the specific aspects affect cognitive abilities and achievement-relevant orientations? What are the sex differences here? It was suggested above that perhaps maternal employment gives girls enough autonomy and independence when they otherwise have too little, but gives boys too much when they otherwise have enough. This would fit with a great deal of previous work on sex differences in independence training (Hoffman, 1977; Maccoby & Masters, 1970) and the exploration of this hypothesis would illuminate many aspects of the accumulated data not presently understood.

And finally, mention must be made of the child-care arrangements. The stability of child-care arrangements proved to be an important intervening variable in Moore's work (1975), but few other studies of working mothers have tried to operationalize these arrangements to see how they mediate the effects of maternal employment. Perhaps the most relevant work is the study of children in day care. There are three excellent reviews of this research (Etaugh, 1978; Belsky & Sternberg, 1978; Rubenstein & Howes, 1979) and the general conclusions thus far are that adverse effects of

day care have not been demonstrated; peer interaction may be somewhat higher among day-care children; and, among lower-class children, cognitive performance is sometimes higher than among non-day-care controls. In most cases, however, the day-care centers studied are those of higher quality, and there are very few studies of the arrangements more commonly made by employed mothers of preschoolers in their own or someone else's home (Emlen & Perry, 1974; U.S. Department of Labor, 1977). Furthermore, there are no studies of the arrangements made for school-aged children except for the few queries about periods unsupervised that have already been reported. For school-aged children, we know very little about what the arrangements are or what arrangements are needed, let alone what the effects of the various arrangements (or lack of arrangements) are.

Adaptation of schools to the prevalence of maternal employment

The thrust of this review has been on the effects of maternal employment on the child's academic attitudes and skills, but there is an interesting research area that is tangential to this. To what extent does the prevalence of maternal employment require adaptation by the educational system? More mothers now work than do not work and this was not the case when educational policies and school routines were developing. Thus there may be a lack of harmony between the educational system and the needs of the population that is served. Issues here include such things as school hours, lunch-time policies, vacation schedules, after-school programs, the time of parent-teacher meetings and special school performances. Since female children are now more likely to pursue serious occupational commitments as adults, and boys may be more likely to participate actively in parenting, the prevailing explicit and implicit sex differentiation in teacher behavior, course content, course selection, and career counseling may be inappropriate. Furthermore, while adult education is removed from

the focus here, courses and counseling which help mothers to find appropriate jobs might be called for. The adaptation of schools to the needs of maternal employment is likely to facilitate the child's academic performance in that it might replace time now spent unsupervised with constructive, school-supervised programs; ease the stress on the mother and improve her role satisfaction which in turn makes her a more effective parent; and improve the academic motivation of girls, particularly as they move into high school, by stimulating an awareness of the fact that they will spend most of their adult lives working and by broadening their occupational outlook and academic interests (Hoffman, 1977).

A research project that would be very valuable in this connection is a survey conducted with mothers, employed and not employed, married and single, to see how the schools meet or fail to meet their needs and to see what they perceive as the desirable role of the school with respect to hours, curriculum, after-school programs, and nonacademic educational programs (e.g., sex education; moral guidance).

CONCLUSIONS

A general impression that one might have from this review is that there are many research projects that might be done and few that have been. Most of the research relating maternal employment to academic measure of children are "mini-studies", conducted by inexperienced researchers on a "one-shot" basis. Or, they are statistical analyses carried out by experienced researchers on data that were collected for other purposes and thus not ideally suited to studying maternal employment effects (e.g., Reese & Palmer, 1970). The work of Gold and her colleagues is an exception in that they have carried out a group of interrelated projects on children of different ages and cultural groups.

There are, however, no large-scale examinations of this very important topic, no research programs, and few senior researchers have turned to this as an area for empirical examination.

To some extent, this may reflect a tendency among psychologists that has only recently diminished to avoid topics that seem too applied. Maternal employment was something for social workers to be concerned with but not true scientists. Fortunately this attitude has changed in recent years and there is new and increasing concern with conducting scientific research on policy-relevant issues. This is a healthy reversal of attitudes that should pay off in research dividends. It makes this a particularly appropriate time to make an appraisal of what the existing data indicate and what research needs to be done.

Several different approaches to the study of how maternal employment affects the child's academic attitudes and behavior have been suggested here. Much of what is needed is basic research about the antecedants of these academic orientations. Support for the continuing work on parent-child interaction and its effects on cognitive development, for example, may be as valuable in the long run as maternal employment studies. In addition, we have suggested maternal employment studies that explore just the relationship between maternal employment and the various antecedant conditions, and also studies that examine the relationship between maternal employment and the various academic indices but do so by operationalizing the various steps that connect these variables. All three approaches require carefully considering the many interacting variables to understand the process that is involved and the part played by the surrounding conditions. We have also suggested two less dynamic kinds of empirical investigations that would provide certain valuable background data: (a) a systematic reporting

of mean scores on a variety of academic indices by age, sex, social class, family composition, and maternal employment status. Such an accounting might be able to utilize existing data such as school records and supplement these with information obtained from parents about maternal employment and whatever else is needed for adequate classification; (b) a survey of parents to obtain information about their perception of existing and desired school policies.

A number of different theories have also been presented here to account for how maternal employment might affect academic variables and to explain some of the patterns that existing data seem to suggest. These theories are proposed as guides to future research but more important than the particular theories is the admonition that subsequent investigations should be theory-based. Furthermore, it is hoped that the new research will focus on understanding the phenomenon with all its complexities.

Too much work on maternal employment has been geared toward casting judgement. In the Fifties, many of the research projects were financed with the hope that they would demonstrate the adverse effects of this pattern so that the results could be used to "get women back in the home" (Nye & Hoffman, 1963). More recent research has been equally bent on proving the null hypothesis: there are no differences between the children of working and nonworking mothers. As we have indicated in the introduction to this paper, maternal employment is here and it is a natural response to the social conditions that exist. Even if a clear negative effect could be demonstrated, it would not mean mothers should not work. Their employment may be valuable and necessary in other respects. Furthermore, it is not always easy to identify a "positive" or a "negative" effect. Good school grades, for example, do not necessarily mean healthy or enduring motivation. By the same token, studies which show no effects,

do not necessarily demonstrate that maternal employment is irrelevant. It is possible that the wrong effects were sought, or the studies inadequate, or the research did not examine the particular group or specific conditions that might have revealed an effect.

Effective social action requires that we understand how maternal employment and nonemployment affect child development. Both patterns probably have strengths and weaknesses, different patterns of influence, different vulnerabilities. The most valuable action programs come from good research. If we understand how various effects take place and how different conditions influence the outcome, we are in a position to identify where in the causal chain remedial attention is appropriate.

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Footnotes

[1]A recent review by Zambrana, Hurst, and Hite (1979) suggests negative effects on the daughters' social adjustment. This conclusion, however, is based primarily on a study by Burke and Weir (1977). The Burke and Weir study used a socio-economically heterogeneous population and did not control on social class, so the results of the study are highly questionable. Many of the results they report are inconsistent with the empirical data from other studies. They, for example, find no difference between part-time and full-time employment, an important variable in Kappel and Lambert's (1972) work which used a comparable sample but controlled on socio-economic status. In this review we have excluded studies that are seriously flawed with the result that some of the generalizations here are quite different from those drawn in the review by Zambrana, Hurst and Hite.

[2]A finding inconsistent with this interpretation is one by Gold and Andres (1978c). In their study of Anglo nursery school children they found that nonemployed mothers are <u>less</u> protective of sons, as measured by the Revised Child Behavior Inventory, than other mothers.

[3]Gold and Andres (1978c), however, report that the middle-class Anglo sons of working mothers in their preschool sample perceived their fathers as more "punitive" than did the other children.